

AMENDMENTS TO THE CLAIMS

1. (Previously presented) An isolated protein comprising the amino acid sequence of SEQ ID NO: 2.

2-12. (Cancelled)

13. (Currently amended) A method for producing a protein having cyclo(D-lactyl-L-N-methyllleucyl-D-3-phenyllactyl-L-N-methyllleucyl-D-lactyl-L-N-methyllleucyl-D-3-phenyllactyl-L-N-methyllleucyl) (PF1022) synthetase activity, which comprises the steps of:

culturing a host cell transformed with a vector containing a nucleotide sequence under conditions suitable for protein expression, wherein the nucleotide sequence is selected from the group consisting of:

(a) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 2;

(b) the nucleotide sequence of SEQ ID NO: 1; and

~~(c) a nucleotide sequence that hybridizes with the nucleotide sequence of SEQ ID NO: 1 under stringent conditions at 0.2 x SSC concentration (1 x SSC: 15 mM trisodium citrate, 150 mM sodium chloride) in a 0.1 % SDS solution at 60°C for 15 minutes and which encodes a protein having PF1022 synthetase activity; and~~

~~(d)~~ (c) a nucleotide sequence that has at least 95% homology to the nucleotide sequence of SEQ ID NO: 1 and which encodes a protein having PF1022 synthetase activity; and
collecting the protein from the culture medium.

14. (Cancelled)

15. (Currently amended) An isolated protein encoded by a nucleotide sequence selected from the group consisting of:

(a) a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 2;
(b) the nucleotide sequence of SEQ ID NO: 1; and
~~(c) a nucleotide sequence that hybridizes with the nucleotide sequence of SEQ ID NO: 1 under stringent conditions at 0.2 x SSC concentration (1 x SSC: 15 mM trisodium citrate, 150 mM sodium chloride) in a 0.1 % SDS solution at 60°C for 15 minutes and which encodes a protein having PF1022 synthetase activity; and~~

~~(d)~~ (c) a nucleotide sequence that has at least 95% homology to the nucleotide sequence of SEQ ID NO: 1 and which encodes a protein having PF1022 synthetase activity.

16-17. (Cancelled)